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THE ARCHAEOLOGY OF CORALVILLE LAKE IOWA VOLUME 4

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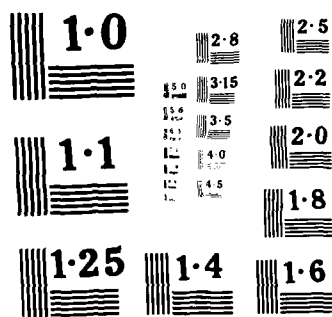
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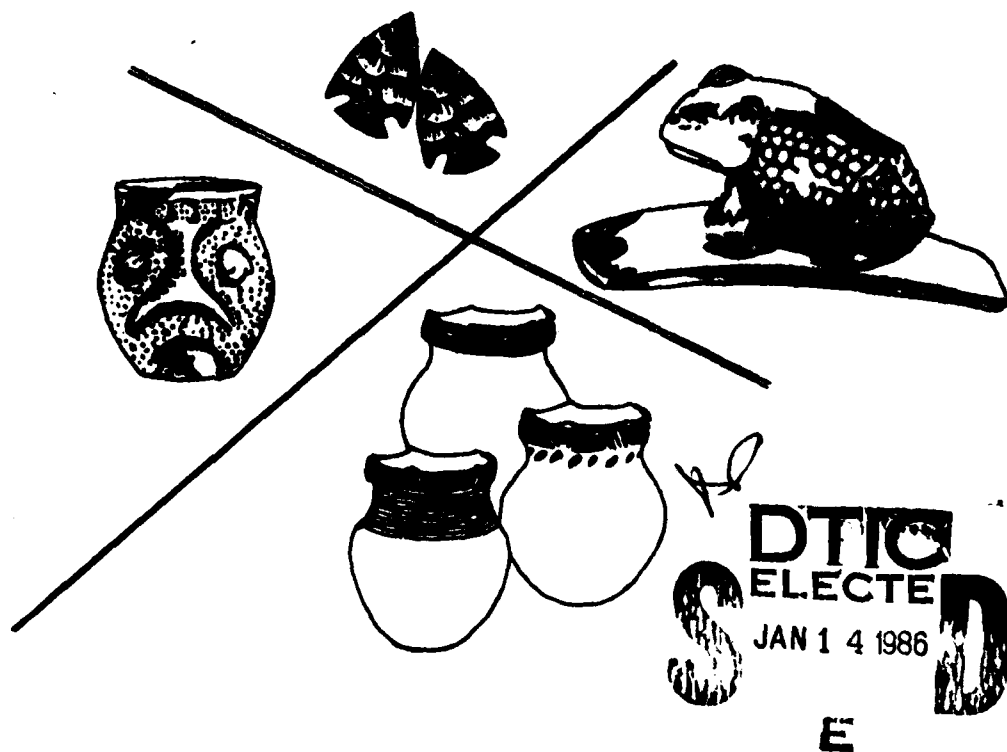
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**GREAT LAKES
ARCHAEOLOGICAL
RESEARCH CENTER, INC.**

Reports of Investigation No. 167

**THE ARCHAEOLOGY OF CORALVILLE LAKE, IOWA
VOLUME IV: RECREATION AREA SURVEY
(INTERIM REPORT II)**



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THE ARCHAEOLOGY OF CORALVILLE LAKE, IOWA
VOLUME IV: RECREATION AREA SURVEY
(INTERIM REPORT II)

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In Compliance With: Contract No. DACW25-84-C-0033
September 1985

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A B S T R A C T

This interim report presents the results of intensive archaeological and geomorphic investigations at 14 special use or recreation areas at Coralville Lake, Iowa. The investigations were conducted with the objective of providing sufficient information to develop a memorandum of agreement for future cultural resources activities on site specific bases. The report is a companion to an earlier interim report which details the results of a sample survey at Coralville Lake. The recreation area survey coverage encompassed approximately 5200 acres bringing the total survey coverage for the project area to a level of 40.0%. Data from the sample survey and recreation area survey have been compiled in compatible formats and have been entered into a geographic information system that will ultimately be applied for a comprehensive cultural resources management plan for Coralville Lake. This plan will be completed following conclusion of a Geomorphic/Stratigraphic study of the project locality.

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INTRODUCTION:

In January, 1985, Great Lakes Archaeological Research Center, Inc. received a modification to Contract No. DACW25-84-C-033 for Cultural Resources Management Plan and Intensive Sample Archaeological Survey and Geomorphological Study at Coralville Lake Iowa. The modification (refer to Appendix A) was focused on recreation areas where substantial development had already occurred and, where future facilities developments are likely to be centered. The investigations were intensive in nature and were designed to: (1) assess the nature and extent of cultural resources within the confines of each recreation area identified in Appendix A; (2) determine the significance, primarily in terms of future research potential at these localities, of each site or resource identified; and (3) provide a summary, given the results of 1 and 2 above, for each recreation area. This latter provision was designed to serve as the basis of developing a memorandum of agreement to guide future cultural resources management activities at recreation areas within the Coralville Lake project boundaries. Finally, this report was to serve as an interim pending results of ongoing investigations related to a formal Coralville Lake comprehensive management plan and a Geomorphological/Stratigraphic study of the Lake locality. Both of these projects are on-going and the interim report is to provide sufficient data for current planning and operation needs of the Rock Island District Corps of Engineers.

This interim report details the results of an intensive archaeological survey of selected recreational areas at the Coralville Reservoir in Johnson County, Iowa. While this document is designed to stand alone, familiarity with reports prepared by Emerson et. al. (1984) and Overstreet and Stark (1985) will greatly facilitate an understanding of

past and present directions of Cultural Resource Management at Coralville.

The report is organized in the following format: (1) A review of survey procedures and previous research; (2) Survey results and recommendations based on both archaeological and geomorphic investigations; and (3) a management summary for each locality identified in the modification scope of work. All of the data collected were recorded in a manner to facilitate integration within the existing data base for Coralville Lake. This entailed recording site and investigation data by Universal Transverse Mercator projection coordinates, digitizing survey unit boundaries within existing computer aided drafting and design system (CADD) parameters, and establishing detail maps for each site recorded during the recreation area survey. These detailed maps and records for each recreation area site are found in Volume V, "Site Specific Data Base". Precise boundaries of each survey unit may be reviewed in Vol. VI, "Atlas".

REVIEW OF SURVEY PROCEDURES AND PREVIOUS RESEARCH:

Great Lakes Archaeological Research Center, Inc. conducted a stratified random sample survey of federal lands at the Coralville Reservoir, Iowa in the fall of 1984. The results of that survey are reported in a separate volume (Overstreet and Stark 1985). The present survey, while directed toward specific recreational areas, was patterned after the original reservoir survey. Associated with the archaeological surveys is a separate geomorphological study of the Reservoir. The contract for this survey was also awarded to Great Lakes Archaeological Research Center, Inc. Geomorphological fieldwork began in June and is expected to be completed in October, 1985. Laboratory analysis and write up culminating in a landscape model of the reservoir should be completed by late fall. With the completion of the geomorphological study, these data will be integrated

with the information from the archaeological study and enable construction of a geoarchaeological model for the Coralville Reservoir.

The present volume presents details of the archaeological survey, geomorphological examination of the recreational areas and sites located during the present survey, and an assessment of the potential for encountering additional archaeological resources in the areas surveyed.

Survey techniques used for investigation of the recreational areas are essentially the same as employed for the earlier sample survey. The primary method used was pedestrian walkover survey. This involves having a trained crew of technicians walk over an area at a specified interval while inspecting the ground for evidence of prehistoric and/or historic occupation. This interval will normally vary between two and twenty meters depending on terrain and project goals. A more or less standard interval is ten meters. A ten meter interval was used for survey at Coralville Lake. Depending on the research design employed, survey interval may be tightened when cultural material is located. At Coralville Lake, one goal of the survey was to collect as much material as possible from the surface exposure of located sites. Intensive collection offers the opportunity of recovering sufficient material for an assessment of the site in terms of temporal/cultural affiliation and function within a subsistence settlement system. In the case of Coralville Lake and other severely disturbed settings, intensive surface collection of sites has the added benefit of recovering material which might otherwise be lost to geomorphological processes and amateur collectors. Accordingly, survey interval was reduced to one meter or less whenever a site was located. As a result, we can be reasonably certain that most if not all surface material present at the time of collection was recovered.

Coralville Lake has been subjected to at least seven professional archaeological surveys (Wheeler 1949, Caldwell 1962, Weichman 1974, Schermer 1982, Zalesky and Zieglowski

1977, Emerson et.al. 1984, and Overstreet and Stark 1985) and intensive collection by two dedicated amateurs (Zalesky 1977, and Miller n.d.). While the surveys have varied in coverage and quality, all interested parties have agreed that the landscape from which most artifacts have been recovered is severely eroded since construction of the impoundment. Although disturbed landscapes are extremely detrimental to the archaeological resources, it is only under conditions of cultivation, erosion or other disturbance that pedestrian survey is a viable reconnaissance technique. Conditions at Coralville are such that pedestrian walkover was used for ca. 70 - 75% of the area surveyed during the present project.

The second technique employed during survey is known as shovel testing. Shovel testing involves excavation of a small hole approximately 30cm. x 30cm. x 30cm. and sifting the sediment through a 1/4" mesh hardware cloth screen. Shovel tests are generally placed in a grid pattern with ten meter intervals between individual tests. Shovel tests may be larger if conditions warrant, i.e. more than 30cm. of recent alluvium. In the event that material is recovered from a shovel test, additional shovel tests may be placed along the grid at close (one to five meter) intervals. Shovel testing at Coralville was employed in the survey of wooded areas and in fields where vegetation obscured the ground surface.

An attempt was made to survey in 25 hectare units in order to maintain continuity with the previous year's survey. As some of the recreation areas are small and of irregular shape, in some cases we surveyed outside of the boundaries of the specified recreational area. By utilizing the 25 hectare units set up for last year's survey we are able to easily incorporate the present project into the CADD mapping system. Figure 1, an appended map, illustrates the units surveyed.

All sites located during the course of the survey were initially plotted on USGS 7.5' quadrangle maps. Comprehensive field notes were recorded by the field supervisor in charge of survey crews. Information gathered in the field was used to complete OSA site forms. All material recovered was washed, labeled and inventoried.

Survey at Coralville recreational areas was carried out during April - August 1985. Investigations at each of the Recreational Areas is presented below. A brief geomorphological assessment is presented for each of the areas.

CORALVILLE LAKE RECREATION AREAS: SURVEY RESULTS:

TURKEY CREEK:

Archaeological Investigation:

The Turkey Creek picnic ground (Figure 2) is located on a narrow ridgetop south of the COE Visitor Center. The area covers some 41 acres with 11 listed as developed. Development includes a central blacktop road, parking lots, picnic areas and a "Frisbee Golf Course." The nonpaved developed areas were shovel tested. No prehistoric material was located. Only recent historic items associated with present picnic use of the facility were recovered. These items were not collected. The undeveloped portions of Turkey Creek are steep sloped and wooded. These sections of the recreation area were walked over but not shovel tested. A recent hiking trail cut was examined with negative results. Shovel testing and soil coring indicate that the landscaped portion of Turkey Creek have undergone extensive disturbance including earthmoving and fill. No archaeological sites were located and no further work is recommended for the Turkey Creek Picnic Area.

Geomorphic Context:

The Turkey Creek recreation area is located on a loess capped limestone ridge. The native soils formed in the loess mantle are primarily forest soils (Typic Haplaudalfs). These soils have undergone considerable historical erosion which is evidenced by the absence of a presettlement surface organic enriched A horizon. In addition, a layer of impenetrable gravel fill was encountered very close to the surface when subsurface investigations were attempted. Judging by the recreation area's topographic position on the landscape, it is very doubtful that a buried surface would be encountered.

TAILWATER WEST:

Archaeological Investigation:

Tailwater West (Figure 3) is located directly south of the Coralville Dam. It is currently developed as a trailer camping area and includes an access road, parking lot and restroom facilities. Tailwater West borders the Iowa River as it emerges from the dam spillway and is a favorite fishing spot. The recreational area encompasses approximately 14 acres, all of which are developed. The entire area appears to be man made land. No archaeological remains were located during survey of Tailwater West. Given the manufactured nature of the landscape, it is unlikely that any archaeological resources will be found here.

Geomorphic Context:

Subsurface investigations were conducted at this recreation area to a depth of 1.94 meters. Historical sediments were observed throughout the entire profile. This landform resembling a terrace was most likely created during or shortly after dam construction.

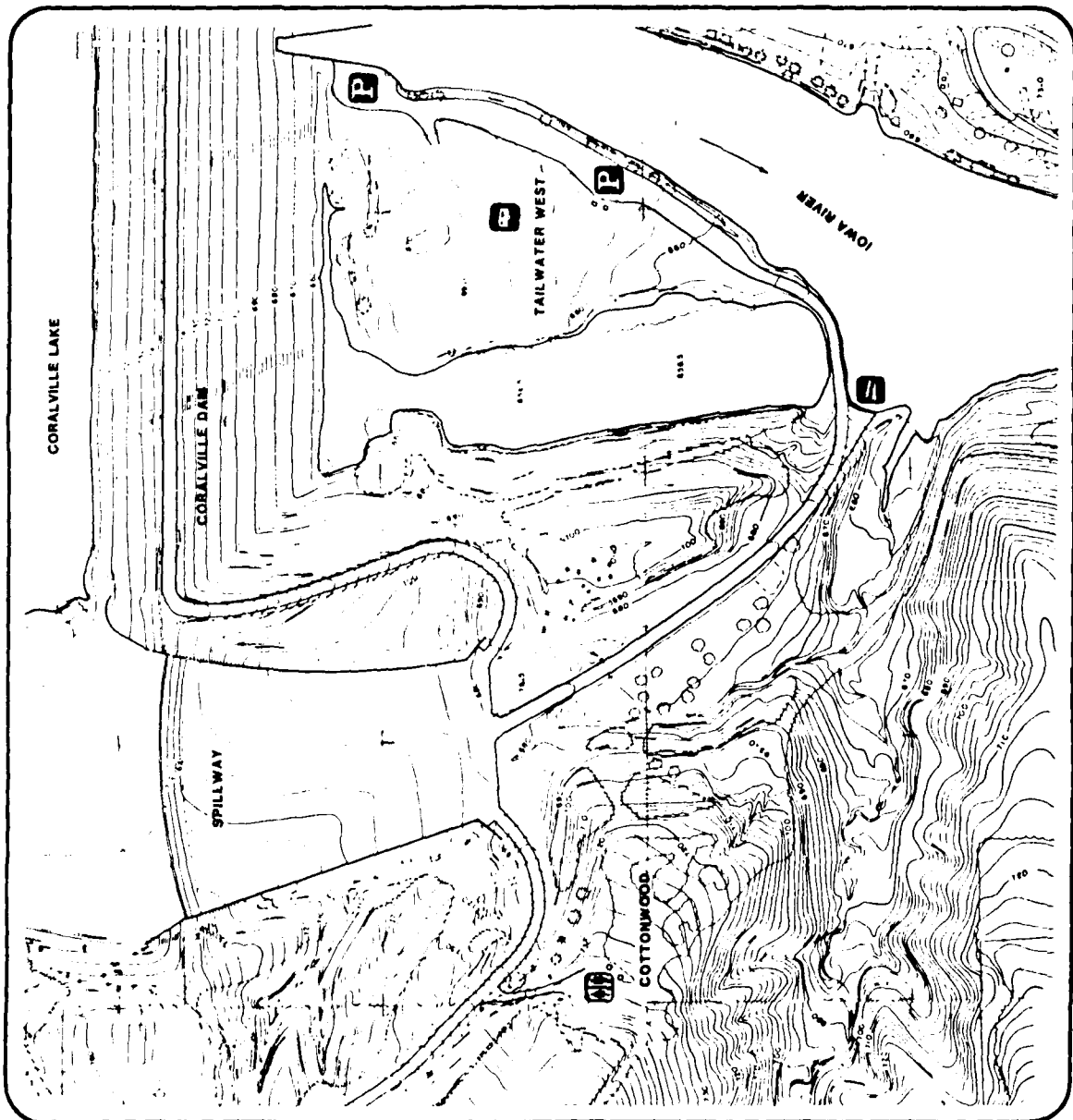
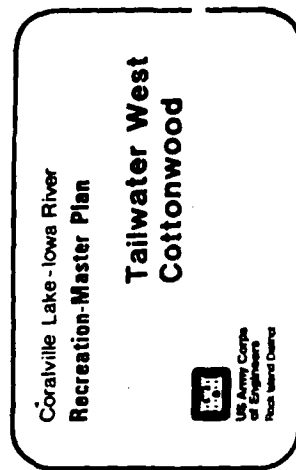
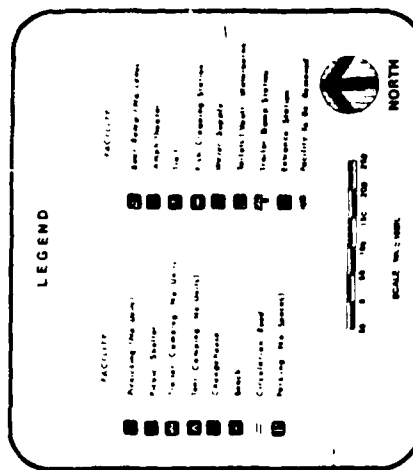
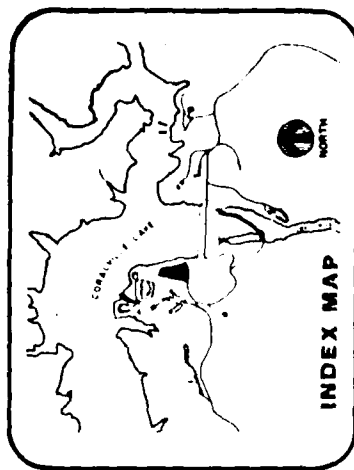


Figure 3: Tailwater West & Cottonwood Recreation Areas.



TAILWATER EAST:

Archaeological Investigation:

This camping area is located south of the Coralville Dam and is directly across the river from Tailwater West (Figure 4). It is devoted to mechanized camping and much of the areas covered with trailer pads, parking lots and associated roads. Five of the seven acres are developed with recreational facilities. Although it does not appear that Tailwater East is entirely made land, the recreation area has undergone rather extensive landscaping. Archaeological survey located no prehistoric or historic sites. No further work is recommended for Tailwater East.

Geomorphic Context:

This area has undergone considerable historical modification from both natural erosion and sedimentation events and from post impoundment landscape modification. Preservation of a natural prehistoric landscape does not exist at this recreation area.

COTTONWOOD:

Archaeological Investigation:

This tent only camping area is located due west of Tailwater West (Figure 3). With the exception of earthmoving to create a relatively level spot for camping and construction of washroom facilities, the campground is not developed. Survey and soil coring indicate that the camping area has been leveled by mechanical means. No cultural material was recovered from Cottonwood. Potential for encountering archaeological sites is restricted to a small alluvial fan that has a paleosol in evidence.

Geomorphic Context:

Cottonwood recreation area is located on a loess capped limestone ridge. The original surface A horizon has been stripped and has been subsequently replaced by gravel fill. Attempts for subsurface investigations were thwarted by the

coarse material. Based upon the recreation area's topographic position on the landscape, it is very doubtful that a buried surface would be encountered. However, along the eastern margin of the campground where a recently constructed walkway now exists, a small alluvial fan has been truncated by the construction. This fan deposit contains at least one buried soil evidenced by a buried argillic (clay enriched) horizon. This landform has been for the most part destroyed by previous construction and as a consequence occupies a very limited area.

WEST OVERLOOK:

Archaeological Investigation:

West Overlook (Figure 5) is a large, multi-use recreational area located northwest of Coralville Dam. Facilities include a large sand beach and parking lot, tent pads, picnic tables and boat ramp. Survey methods employed were pedestrian walkover along the eroded shoreline and beach and shovel testing on landscaped upland areas. Steep, wooded slopes were not surveyed with subsurface techniques.

Development at West Overlook has been extensive and appears to be complete. That is, areas likely to undergo landscaping have already been modified. No cultural materials were recovered from the West Overlook Recreational Area and additional survey is unlikely to locate archaeological remains.

Geomorphic Context:

Like the Cottonwood area West Overlook is located on a loess capped limestone ridge. The surface A horizon has been subjected to erosion and consequently only about 10cm of the A horizon remains. Below the A horizon subsurface investigations showed an eluvial horizon with an underlying argillic Bt horizon. At this time, no evidence supports the existence of a buried stable surface. In addition, much of the recreation area has been historically modified through the use of heavy construction equipment.

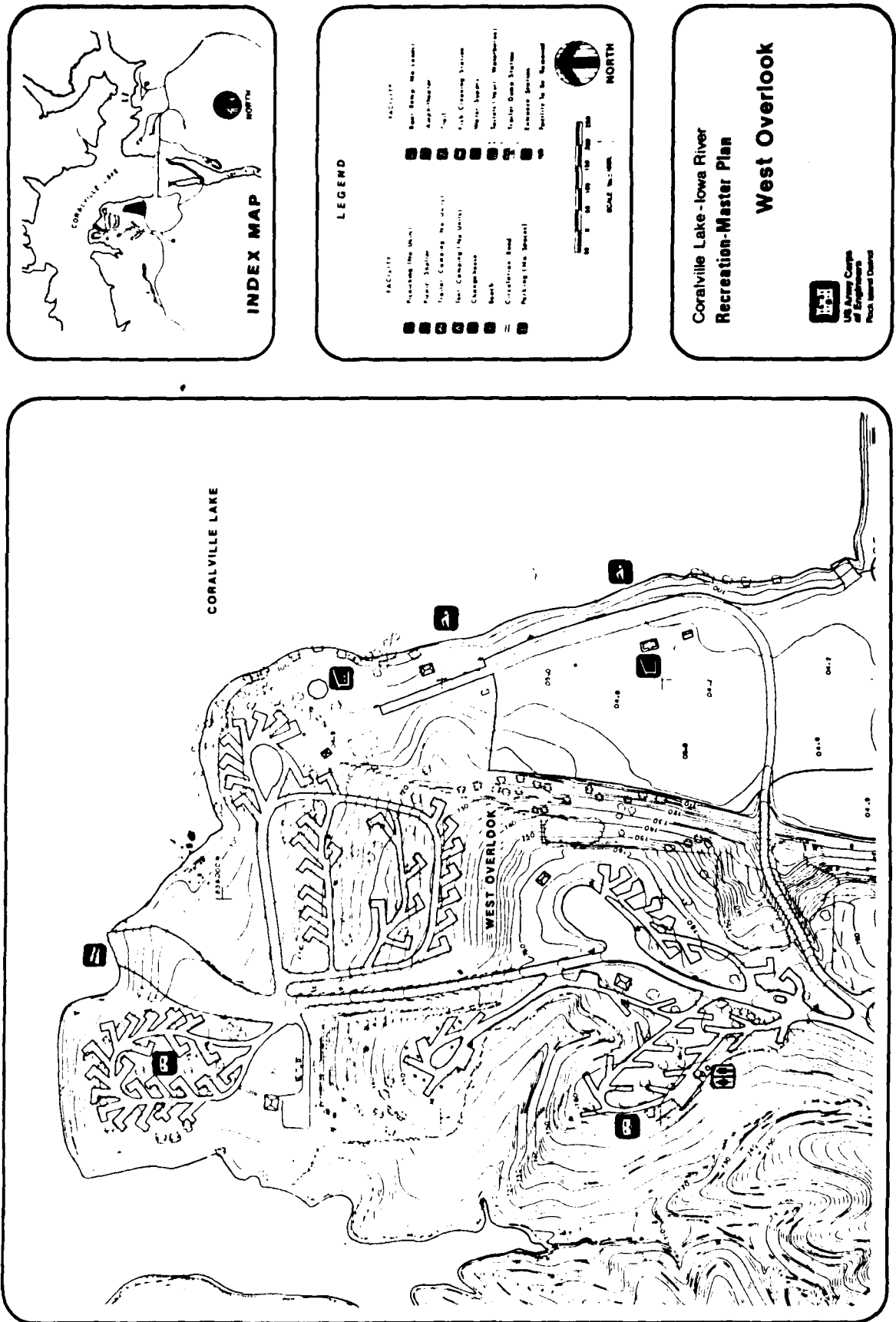


Figure 5: West Overlook Recreation Area.

LINDER POINT:

Archaeological Investigation:

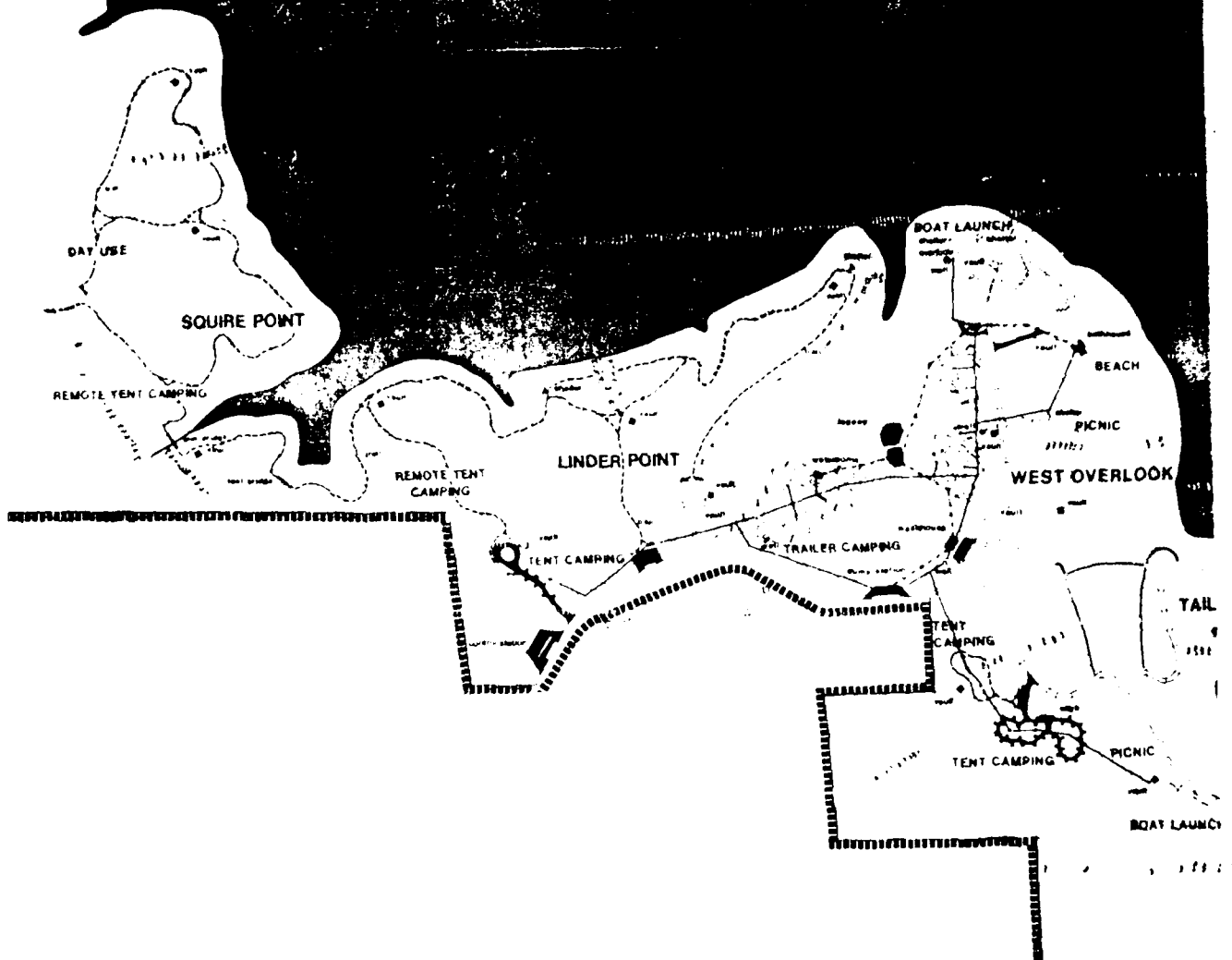
This multi-use campground consists of a heavily landscaped and developed ridgetop trailer campground and a relatively undeveloped tent camping area (Figure 6). Woodpecker Nature Trail is associated with the Linder Point development. The Trail runs through undeveloped upland and shore areas of Linder Point. Landscape modification along the trail is minimal and consists primarily of wood chip paths with occasional steps constructed of railroad ties or logs.

The landscaped campground area was shovel tested and cored with a soil probe. While these tests confirmed that the original surface had been extensively modified, no cultural material was recovered. The crew also walked the Woodpecker Nature Trail and shovel tested at intervals along its margins. Survey along the trail did not locate any historic or prehistoric archaeological remains.

A pedestrian survey was employed along the eroded shoreline of Lake Coralville within the area of Linder Point. Site 13JH360 had been reported from the shoreline of Linder Point. The site consists of a single ceramic crumb collected by Schermer (1983) during her shoreline survey of Lake Coralville. An attempt was made to relocate the site by Emerson during her survey of COE land (1984). Emerson was unable to locate any artifacts or other evidence from 13JH360. Although we did not specifically attempt to locate this site, we did carry out a pedestrian survey of the entire shore along Linder Point. Our survey failed to locate 13JH360 or any other cultural remains. Given the limited collection from 13JH360 and the recent surveys in the area, one can assume that the site no longer exists.

Geomorphic Context:

The developed area located on an upland loess capped limestone ridge, is severely eroded with little of the



surface A horizon remaining. Paleosols are unlikely to occur in the developed portion of the recreation area. The undeveloped area which includes portions of low ordered drainages may contain stable surfaces which have been buried by small steep sloped alluvial fans or by mass wasted colluvial sediments. The present geomorphological research currently being conducted is evaluating the potential for buried surfaces in low ordered drainages within the reservoir margins.

SQUIRE POINT:

Archaeological Investigation:

A largely undeveloped and possibly abandoned recreational area (Figure 6). No area estimate was provided by the COE and the facility does not appear to be actively used at this time. Developments consist of limited unimproved parking and a hiking/cross country ski trail. Survey methods were shovel testing along the trail and pedestrian survey of the shoreline. No cultural material was located during the present survey of Squire Point. Large tracts of land composed of wooded slopes were not surveyed with subsurface techniques.

Previous surveys located two prehistoric sites along the shoreline of Squire Point. Site 13JH361 was located by Shirley Shermer during her shoreline survey of 1981 (Shermer 1983). She recovered a flake and a single Late Woodland rimsherd. A second site, 13JH256, has been reported by Duane Miller, an active local amateur archaeologist. He recovered a scraper/knife and chert debitage. This site was relocated in 1984 by GLARC during its survey at Coralville. The GLARC crew collected several flakes and a corner notched biface with a bifurcate base. This point is somewhat unique. We have thus far not been able to locate similar pieces in the literature. A complete description and photograph appear in Overstreet and Stark (1985). The

material from these sites is limited and the landform from which the artifacts were recovered is severely eroded. Both sites should be considered destroyed. No further archaeological work is recommended for Squire Point.

Geomorphic Context:

Squire Point is typical of many locations within the Iowa River gorge. Surface deposits have been eroded, severely, by reservoir operations. Any archaeological deposits at this locality must exist as a lag component on the surface. In fact, it is quite possible, given high magnitude floods, that the sparse cultural materials found at this location are redeposited. The potential for encountering buried soils at Squire Point is exceedingly remote.

SUGAR BOTTOM:

Archaeological Investigation:

This is the largest of the COE managed recreational areas at 780 acres (Figure 7). The COE lists 77 acres of this park as developed. Sugar Bottom is also one of the most intensively surveyed sections of the reservoir and has 21 reported prehistoric sites. Unfortunately, most of the prehistoric sites reported at Sugar Bottom, including those found during two seasons of survey by GLARC are situated on severely eroded landscapes. None of these sites are considered to have any integrity. Previously reported sites include 13JH55, 106, 115, 117, 124, 125, 126, 202, 234, 238, 257, 262, 298, 309, 359, 385, 422 and 425. The GLARC surveys relocated nine of these sites; 13JH55, 116, 124, 236, 202, 238, 298, 385 and 422, and an additional five new sites. The new sites include two historic foundations, 13JH521 and 522, two prehistoric sites, 13JH520 and 522, and a prehistoric spot find, 13JH-15.

The previously recorded sites are described in Emerson (1984). In general, the majority of the sites at Sugar

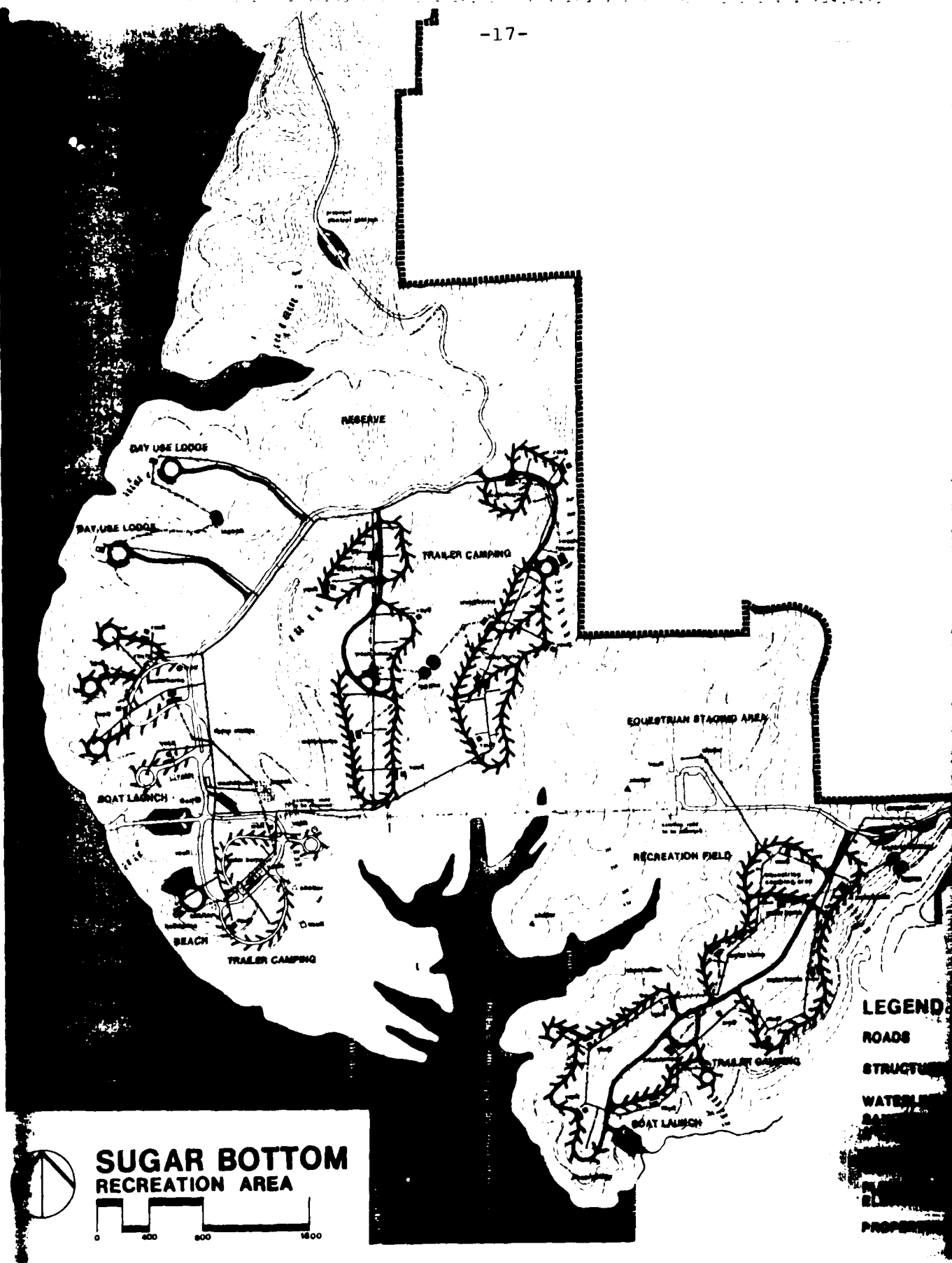


Figure 7: Sugar Bottom Recreation Area.

Bottom are located on sand terraces in the central portion of the beach area. Additional sites have been reported along the shoreline with two sites located in upland agricultural fields and a rockshelter found in a small tributary valley.

The new prehistoric sites located by GLARC fit comfortably into this pattern with 13JH520 and 523 described as lithic scatters on eroded terrace surfaces and 13JH-15 recorded as a spot find on the shore of a large inlet at the southern end of the recreational area. GLARC also reported two historic foundation sites at Sugar Bottom. Site 13JH521 is the remains of what appears to be a house near the intersection of a park road and a former field road. The site consist of a foundation and debris from the probable house. Site 13JH522 is a large foundation located next to the current sanitary trailer dumping station at Sugar Bottom. This foundation appears to be the remains of a barn or similar farm-related structure. The structures of both sites were removed by RID-COE as part of the dam construction activity.

Despite the development and erosion at Sugar Bottom Recreation Area the density of prehistoric remains is an indication of the level of prehistoric activity in the vicinity. Given the destruction of archaeological resources which has already occurred and the lack of integrity of all known shoreline and terrace sites, no further field work is recommended for these sites. Additional work might be warranted for the two upland sites, 13JH359 and 425. Emerson placed a single shovel test in 13JH359 and suggests that the site may have subsurface integrity (Emerson et. al. 1984). Site 13JH425 was located in a plowed agricultural field. The site is represented by surface collection only and no assessment has been made of the site's integrity. If either of these sites has relatively deep features, portions of them may be intact and warrant further investigation.

Geomorphic Context:

This area located on a loess capped pre-Holocene terrace has been subjected to severe erosion evidenced by the complete absence of the surface A horizon. In many areas erosion has extended well into the subsurface Bt horizon. A thin veneer of very recent post erosional alluvial sediments can be found mantling the surface throughout much of the area along the reservoir margin. As a result of the severe erosional events, cultural material has appeared on the surface as a lag component.

MID RIVER PUBLIC USE AREA:

Archaeological Investigation:

Mid River Public Use Area (Figure 8) includes a small park with picnic grounds, a boat ramp and an adjacent private marina. The park/picnic area was shovel tested and the exposed shoreline subjected to walkover survey.

A prehistoric site, 13JH27, has been visited by several collectors including GLARC. The site is located on an eroded piece of shoreline adjacent to a concrete boat ramp and has primary use as a small beach. The combination of erosion and heavy foot traffic have combined to destroy the site for all practical purposes.

Coring of the park area produced evidence of an anomaly believed to represent a farm outbuilding. The feature appears on the surface as a slight rise, roughly rectangular in outline. The rise was cored with a silt probe and charred material, bits of wood and limestone were recovered. These items indicate an historic structure which had been burned and the remains covered over with earthmoving equipment. A check of COE Real Estate records shows that several farm related buildings stood in the tract which makes up the Mid River Public Use Area. The Real Estate Acquisition Section records note a small dilapidated outbuilding which had burned about the time the COE bought the land. The records are not detailed enough to positively

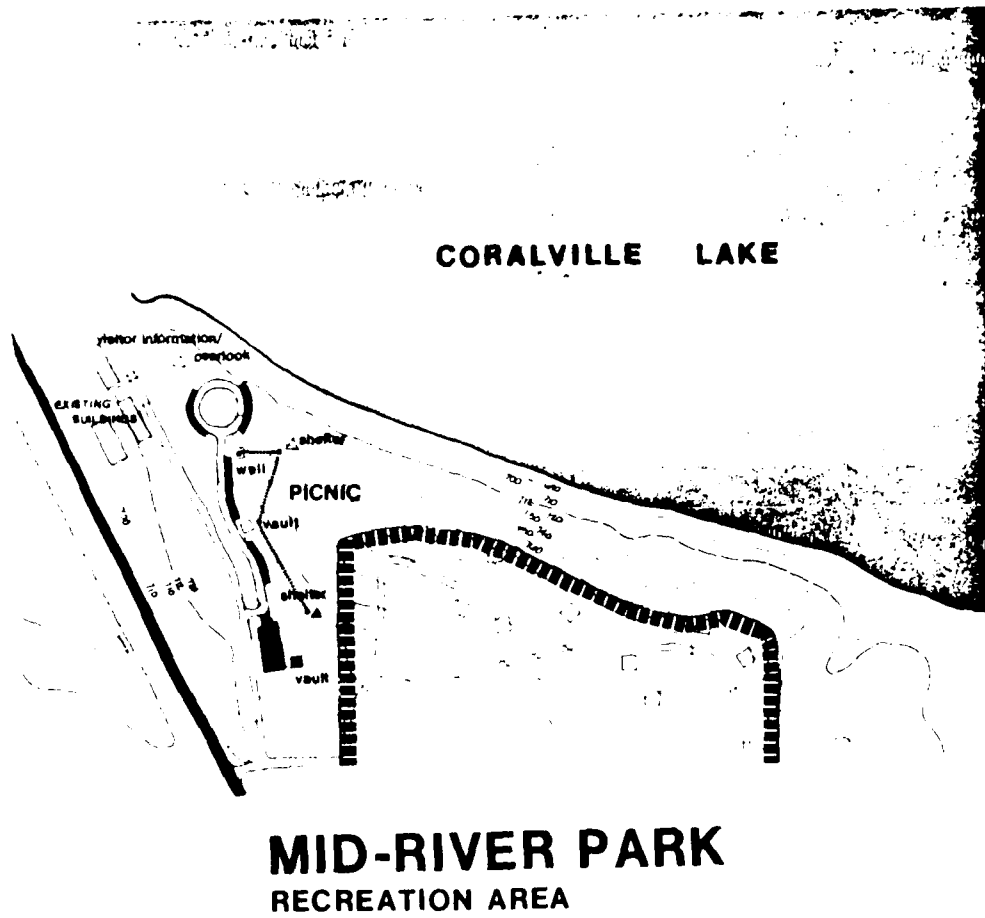


Figure 8: Mid-River Recreation Area.

identify the remains located as the burned outbuilding described. However, this seems to be the best explanation available. An attempt was made to investigate the Johnson County tax and deed records for information relating to this structure. It appears that the County has destroyed many of its archival records. Employees at the courthouse explained that the County had recently computerized its records and the new system went back only about thirty years. People we spoke with in the clerk's office did not know what had become of the older original documents.

No further work is required or advised for 13JH27. The identification of 13JH536 as the burned and buried remains of a farm outbuilding is the best fit to the available data.

Geomorphic Context:

This area is located on a relatively steep side slope. A first order drainage bisects the side slope which is capped by a thin loess deposit. A core was taken in the small drainage and found to contain at least 3.52 meters of leached reworked loess while an area only 14 meters to the south of the core showed a totally different profile. This profile from a short distance away exposed pre-Illinoian sandy clay loam till at a depth of 1.22 meters. Apparently slope wash erosion which has likely occurred throughout much of the Holocene has mobilized the loess formerly located on the hillslope for deposition in the small drainage. However, deposition of this valley fill component must have occurred at a rate sufficient to preclude surface stability and soil development since no paleosols could be identified.

CURTIS BRIDGE:

Archaeological Investigation:

Curtis Bridge Recreation Area is located near the southern terminus of a former bridge across the Iowa River (Figure 9). This bridge has been replaced by higher, larger structures for Highway 218 and Interstate 380. Curtis

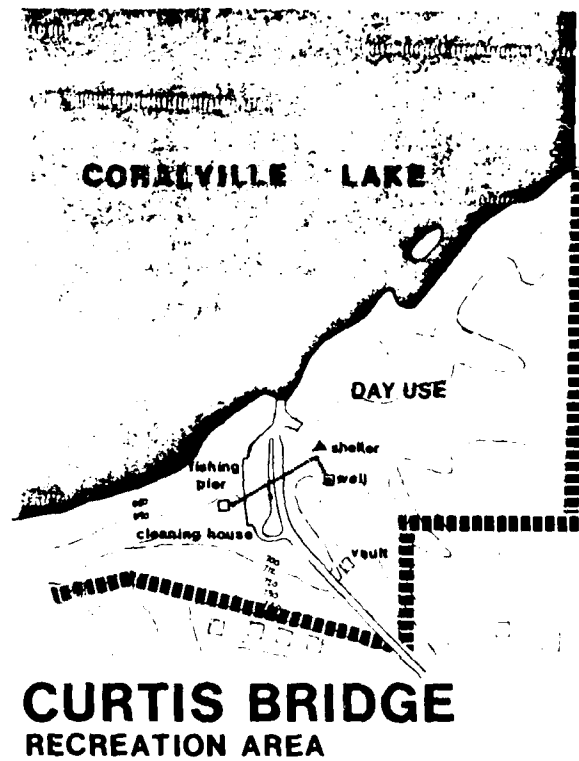


Figure 9: Curtis Bridge Recreation Area.

Bridge Recreational Area consists of a boat ramp, parking lot and a small park. The vicinity of the former and present bridges is a popular fishing spot.

Low water in the Reservoir this spring exposed large areas of "mud flats." Exposed mud flats and shoreline were surveyed by pedestrian walkover. Iowa state site files report a site (13JH27) on the shoreline at Curtis Bridge. Material recovered from the site includes debitage and fire cracked rock but no diagnostics. Zeiglowski and Zalesky (1981) report that part of the site was destroyed when the boat dock was constructed. Our survey failed to locate any evidence of a site at Curtis Bridge. The site is presumed to be destroyed. The landscape on which it was located is subject to severe erosion, heavy pedestrian traffic and fluctuating water levels. No further action is recommended for this site.

GLARC also surveyed the area opposite Curtis Bridge, i.e. the north terminus of the former bridge. No evidence of prehistoric or historic occupation was recovered with the exception of the bridge foundations.

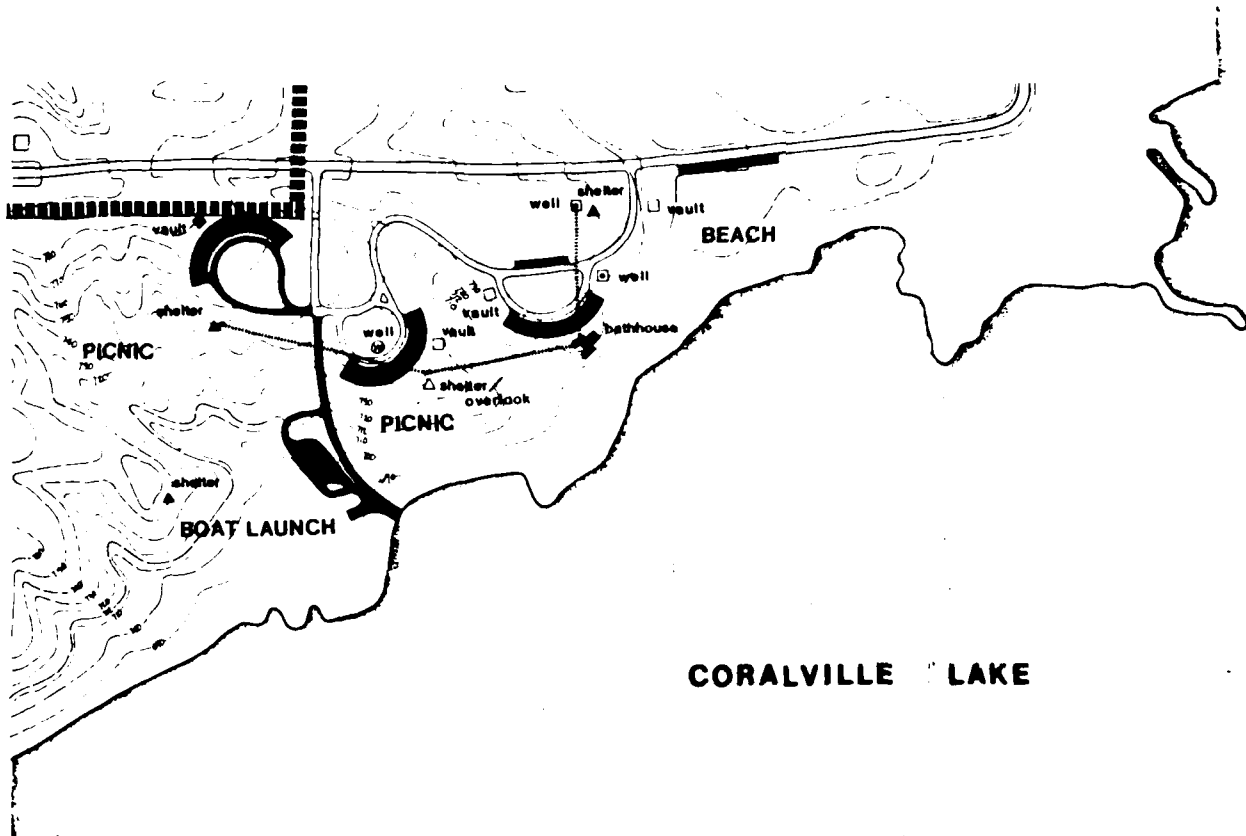
Geomorphic Context:

Recent erosion has stripped former surface soils from the Curtis Bridge locality. In addition, construction activities including cut and fill for bridge footings has compounded the disturbance. The prospects for encountering stable buried surfaces at this location is very low.

SANDY BEACH:

Archaeological Investigation:

Sandy Beach is a large multi-use recreational area with facilities for camping, picnicking, swimming and boat launching (Figure 10). Of the 642 acres that make up the site, 612 are listed as developed. The recreation area was surveyed by pedestrian walkover along the shore and on exposed inland areas and by shovel testing in developed and



SANDY BEACH RECREATION AREA

Figure 10: Sandy Beach Recreation Area.

undeveloped areas with extensive ground cover. Several sites were located during the GLARC survey.

Site 13JH-18 is a spot find of a single biface located on top of a load of fill dumped into the head of a ravine in an effort to limit further erosion. The point is obviously out of context. The location of the borrow area, if known, might be profitably investigated. The location of the find spot however does not warrant further investigation.

Site 13JH43 is a large, dense site located on an eroded dune northeast of Sandy Beach proper. The site has been investigated by several archaeologists, including Adrian Anderson who conducted test excavations at the site (1971a). The various investigations (Weichman and Tandarich 1974, Weichman 1975, Zalesky 1977, Zeiglowsky and Zalesky 1981 and Emerson et. al. 1984) have collected a vast amount of material including ceramic styles and biface types from Early, Middle and Late Woodland periods. The landform on which the site is located is a sand dune subject to severe erosion due to fluctuating water levels, wind and heavy pedestrian and recreational vehicle traffic. Remains of RV use, campfires and target shooting were evident throughout the site. Anderson's testing demonstrated that site integrity has been destroyed by the various processes listed above. The site has been heavily collected by amateurs and professionals alike and has produced the widest range of ceramic styles of any site in the Reservoir (Anderson 1971a). Erosional processes will undoubtedly continue to expose artifacts on the surface. However, the site is considered destroyed for all intents and purposes.

J. Anderson suggests that the sand dune had been used as a borrow area for material dumped on the main beach to the southwest. This may well account for the artifacts located on the beach at Sandy Beach (13JH108).

13JH108 consists of a surface lag deposit of ceramics and lithic debitage located on the main sand beach of Sandy Beach. The GLARC survey recovered lithic debitage only.

However, previous surveyors have also recovered ceramics of several types. If the site is an original prehistoric deposit, all integrity has been destroyed due to wind and water erosion. However, the possibility also exists that this beach is man made with sand trucked in from the dune at 13JH43. In either case, the site is classified as destroyed in spite of the fact that successive erosional episodes will probably expose more artifacts on the surface. No further archaeological work is recommended for this site.

The following sites are reported in or near Sandy Beach but were not relocated by GLARC:

13JH146 Material from this site includes groundstone tools, debitage, bifaces and ceramics. The site has been given a Late Woodland cultural affiliation (Zalesky 1977). Reports of 13JH146 provide an interesting illustration of the variation in information supplied by various surveyors and the dynamic condition of sites along the "bathtub ring" at Coralville Reservoir. James Zalesky (1977) reported the site to be "at least 20 acres" and "normally under water." Duane Miller provides an estimated site area as one acre (n.d.). Zalesky and Zeiglowksi (1981) say that the site has suffered minimal damage and has a high research potential. The GLARC survey was unable to locate the site at all, despite low water and good survey conditions. Given the level of erosion common to the Coralville shoreline, it would seem that Zalesky and Zeiglowksi's assessment of integrity and research potential are optimistic at best.

13JH396 This site is illustrated on Emerson's U.S.G.S. site map as being adjacent to 13JH43. However, it is separated by sufficient distance to warrant a different site number. The site is located on a terrace with the northern two thirds under cultivation. Emerson (1984) shovel tested the site and reports that it has no evidence of subsurface integrity. As reported by Emerson, the site consists of lithic material on the surface of the plowed

field and adjacent eroded surface. No additional archaeological work is recommended.

The overall archaeological picture at Sandy Beach is similar to that of Sugar Bottom, or for that matter virtually any plot of land along the river which includes areas of low relief and streams emptying into the lake. That is, remains of prehistoric occupation, especially of Woodland groups, are found throughout the recreation area. At least one large multicomponent site has been located along with several smaller sites in both upland and shoreline settings. Both Sugar Bottom and Sandy Beach present favorable habitats accessible to the resources of a major river, smaller tributary streams and adjoining valley slopes and uplands. Unfortunately the two recreational facilities also share disappointing preservation conditions for all sites located thus far. Shoreline, terrace and upland sites have been routinely subject to fluctuating lake levels, severe erosion from both wind and water, plowing, pedestrian traffic and vehicular traffic. The conclusion is that while these recreation areas have apparently been the locus of considerable prehistoric activity, all known sites are effectively destroyed. Any further work directed toward these and other sites at Coralville should probably focus on analysis of existing artifact collections rather than gathering new material from the field.

Geomorphic Context:

One site studied in this recreation area was located on a severely eroded eolian dune. No evidence of a surface A horizon exists although subsurface investigations uncovered textural lamellae (banded B horizon) beginning at 83cm below the surface. The investigations which extended to a depth of 2 meters provided no evidence of a buried stable surface. In addition, an erosional cut into the dune also showed no evidence of a buried stable surface.

The erosional cut seen in the dune at 13JH108 apparently provided fill for this beach site. In addition, heavy construction equipment has highly modified this recreation area.

Site 13JH -18 is composed of very recent gully fill material which is being used to prevent further headward erosion. The depth of this fill deposit is over 2 meters and constitutes a landscape which has evolved from the use of heavy construction equipment.

MEHAFFEY BRIDGE:

Archaeological Investigation:

Mehaffey Bridge is located approximately one half the distance between Coralville Dam and the I-380 and Highway 218 bridges (Figure 11). A boat ramp and parking lot are located adjacent to the western end of the bridge. All of the Mehaffey Bridge Recreational Area's 20 acres are developed. Survey at this location consisted of shovel testing on land not covered by blacktop but with dense vegetation and pedestrian walkover along the shoreline.

Two sites were located during the GLARC surveys. Site 13JH478 is a small lithic scatter originally found during the 1984 season. It is located on the shoreline south of the boat landing. Site 13JH-17 is a spot find located on a relatively steep bank near the boat ramp. The only item recovered was a corner notched triangular biface, perhaps a Snyders variant.

Both sites are situated on an eroded landform which does not allow the possibility of subsurface integrity. They fall into the category of lag deposits on the "bathtub ring" of the reservoir. Neither site warrants further archaeological investigation.

Geomorphic Context:

This recreation area is located on a severely eroded loess capped hillslope that dips toward the Iowa River. The

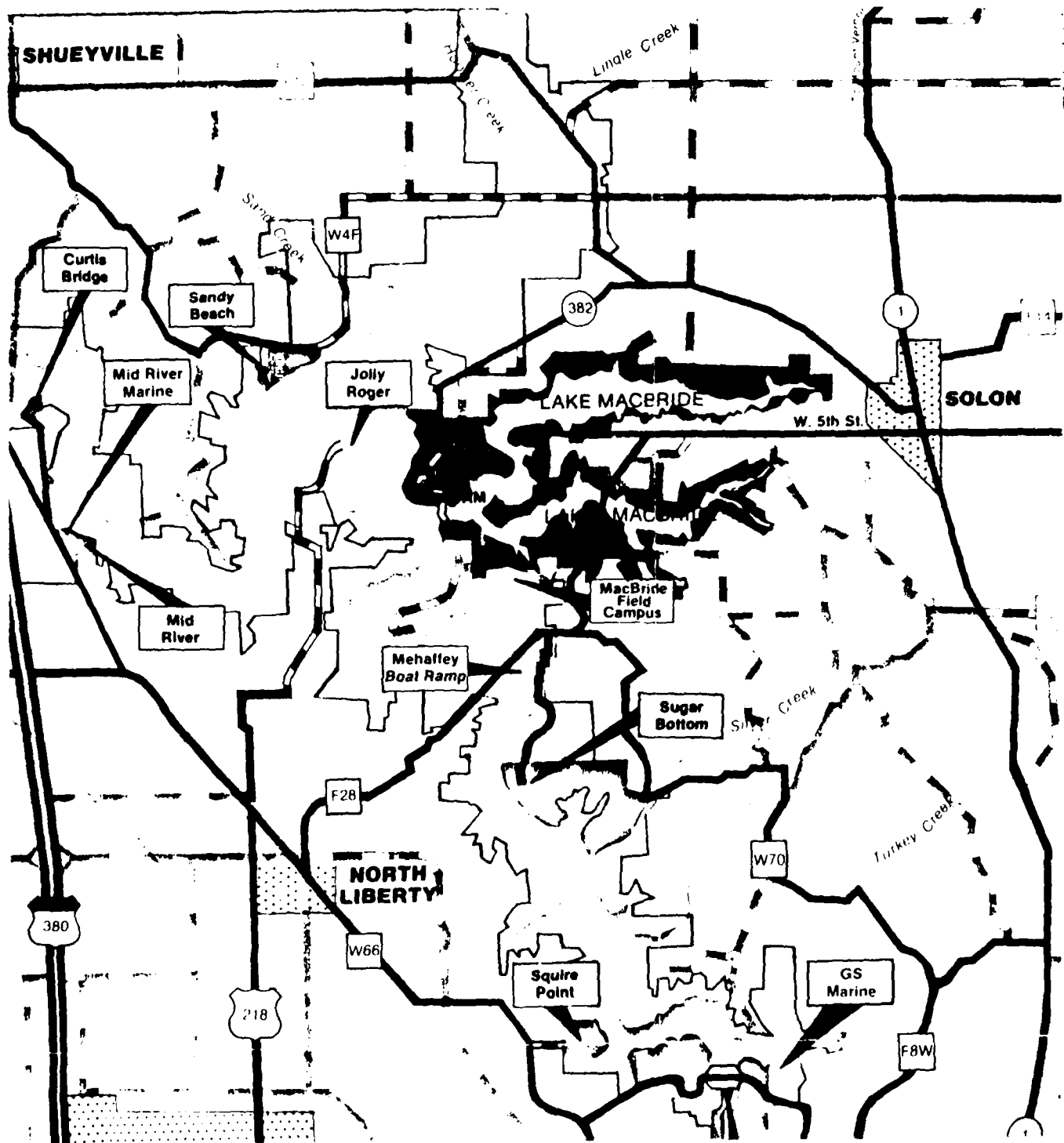


Figure 11: Mehaffey Bridge Recreation Area.

surface A horizon has been totally stripped exposing the lower subsurface argillic horizon. The potential for recovering buried stable surfaces at this recreation area appears remote.

LAKE MacBRIDE STATE PARK:

Archaeological Investigation:

Lake MacBride is a separate impoundment adjacent to Coralville Lake and maintained by a dam and spillway at its junction with the main reservoir (Figure 12). The lake is made up of two fingerlike bodies of water fed by several streams including Jordan Creek and Mill Creek. These streams feed into the northern (Jordan) and southern (Mill) fingers at the eastern end of the lake. The COE owns an irregular strip of land around the perimeter of the lake. This area, including the lake itself, has been leased to the State of Iowa and is maintained by the Iowa Conservation Commission as a State Park.

The landscape of COE lands around Lake MacBride is similar to that around Coralville Lake. Most of the land has high relief with numerous steep sloped valleys and ravines and high narrow ridgetops. Areas of high relief tend to be wooded. Approximately the eastern third of the lower finger and the eastern two thirds of the upper finger have less severe relief. The land rises from the lake in these areas, but tends not to be as sharp or dissected as the western portion of the lake. At the far eastern tips of the lake the land tends to be flat and marshy. Vegetation in the eastern portion of the lake is primarily grasses and shrubs with occasional trees.

The water level of Lake MacBride is very stable when compared to that of Coralville Lake. As a result, shore erosion is at a minimum and shoreline vegetation is generally stable. Waves caused by wind and boats are the prime factors contributing to bank erosion on Lake Macbride.

Survey around Lake MacBride was conducted primarily by shovel testing. Some portions of the COE owned land had recently been cultivated and were surveyed by surface techniques. Trails around the lake with exposed surface and small sections of eroded bank were also surveyed by walkover.

Shovel testing efforts were hampered by two factors, one natural and one cultural. The steep relief of much of the COE land especially in the western portion of the park limited the area in which shovel testing was practical. Only ridgetops and relatively level land along the shore of the lake were shovel tested. ICC personnel, upon viewing shovel testing, became somewhat concerned that other park visitors having seen our crew excavating holes in the park might take it upon themselves to do the same. In order to minimize destruction to the park, they requested that we limit shovel testing as much as possible, especially when other visitors were within view. In order to comply with this request, we tended to shovel test only in areas not frequented by the general public. In practical terms this meant that we did not shovel test at campgrounds, boat ramps or close to the shore. In most cases we were able to substitute walkover survey along the exposed shoreline, footpaths and other instances of less than 100% vegetation cover.

Only three archaeological sites were located during our survey of Lake MacBride. All three are recent historic sites. Site 13JHJ524 is a single foundation located at the far eastern end of the lower finger of the lake. Site 13JH525 is a group of three foundations found on the southern shore of the southern finger. Site 13JH526 is a windmill and livestock watering tank located near the top of a steep sloped ridge a few hundred meters south of Lake Macbride. The foundations and their associated structures were acquired by the COE in conjunction with the Coralville dam project. They were undoubtedly associated with farming activities. As was the case with other property purchased

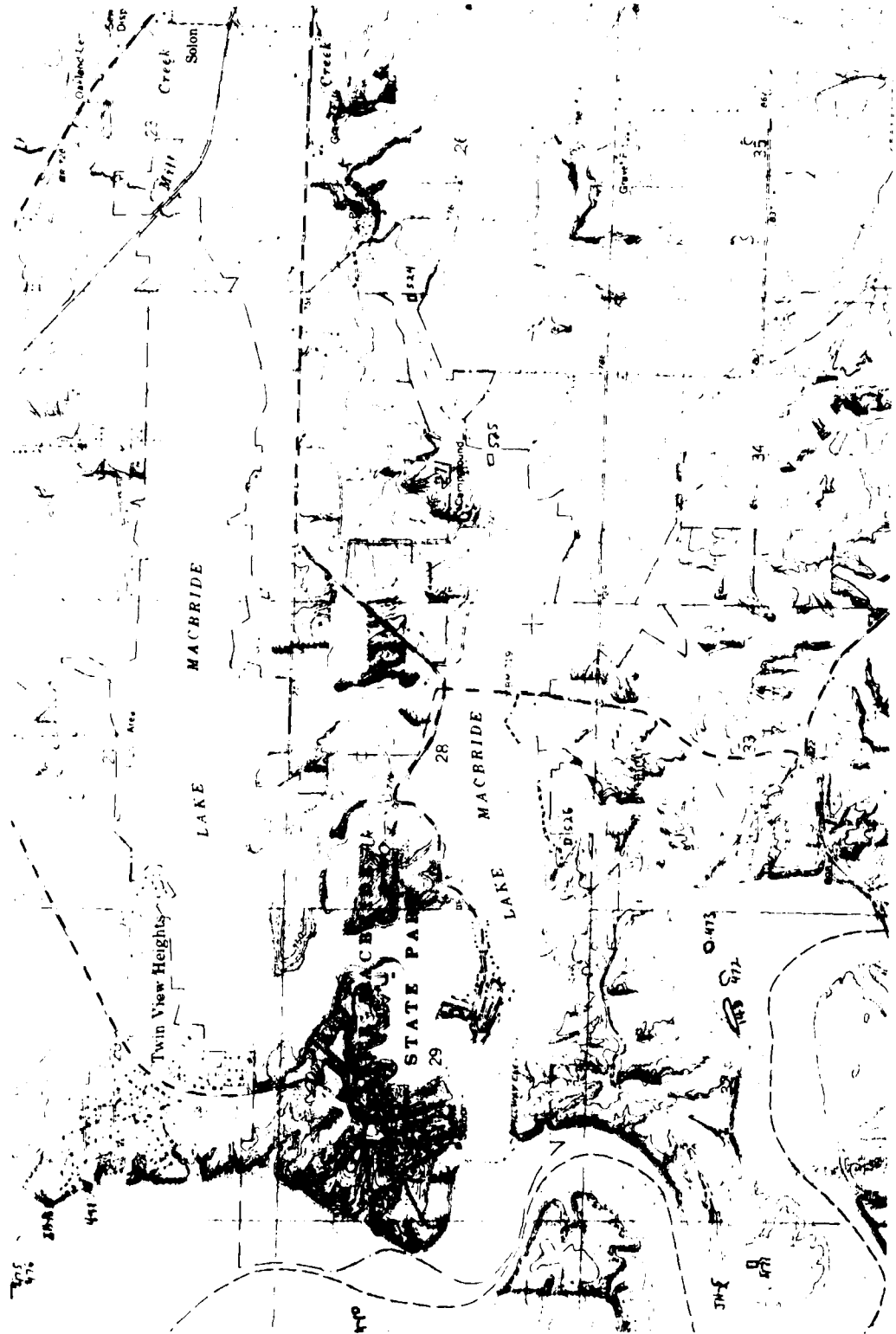


Figure 12: Lake MacBride State Park.

by the COE, the buildings were either moved or torn down. Documentation including appraisals, descriptions and often photographs are housed at the RID-COE offices in Rock Island. Foundations and other structures are stable and protected from further man made disturbance because they are located on Corps land. Now that they have been razed, the remains are more or less safe from human disturbance and subject only to the ravages of nature and time. As noted in our earlier report (Overstreet and Stark 1985) none of the structures acquired by the Corps is known to be unique from either an historical or architectural perspective. Similar if not identical structures are in common use in the surrounding area. Anyone wishing to investigate questions of recent historic settlement in the vicinity has a number of existing structures, documents and individuals from which to secure data.

No prehistoric sites were found during the 1985 survey of Lake MacBride. GLARC located two sites within Lake MacBride State Park during the 1984 season, but both are on the shore of Coralville Lake. Four sites had been reported previously from the Park and again these are on the shore of Coralville Lake. One of the sites discovered by GLARC had been reported previously. The reported prehistoric sites in Lake MacBride State Park are:

1. 13JH47 is located just west of the Lake Macbride Spillway at the present site of a boat ramp. The site consisted of ceramics of various styles and lithic debitage. The state site form lists the site as underwater and/or destroyed.
2. 13JH140 was reported from the southern end of the Spillway. Material recovered includes a triangular projectile point and lithic debitage. Reports indicate that the site is

subject to severe erosion and pedestrian traffic.

3. 13JH334 was found on the spillway itself and consists of a single Durst Stemmed Point. The landscape has been significantly modified by construction of the dam and spillway.
4. 13JH409 may be found on the shore of Coralville Lake at the far western end of Lake Macbride State Park. Material recovered includes debitage, bifaces and ceramics. 13JH409 sits on a severely eroded shoreline. It was the only previously reported site relocated during the 1984 GLARC survey.
5. 13JH492 was the only new prehistoric site located in the Park during the GLARC surveys. The initial survey recovered several flakes and a scraper atop a relatively small limestone bluff overlooking Coralville Lake. Four 1 x 2 meter test units were excavated on the site during the 1984 season. During testing a few more items were found on the surface but nothing in the excavations. The artifacts were recovered as a lag deposit on a very old surface. The sediment on which they had been originally deposited has eroded away completely. A single unit placed above the erosion line in a wooded area also proved to be sterile.

All prehistoric sites known from Lake MacBride State Park have been found on the shore of Coralville Lake in a typical eroded shoreline context. The failure to locate

prehistoric sites in the rest of the park may be accounted for in several ways. First is the rugged nature of the terrain around Lake MacBride. A second factor is the lake itself which is fed by relatively small streams and may not have been as attractive for settlement as the larger valley of the Iowa River. A third possibility is that the Lake has flooded sites originally located along the streams that now feed the lake. Last but not least is the paradox of an apparent stable landscape around Lake MacBride. A large number of destroyed sites have been located around Coralville Lake because of the fluctuating water levels and severe erosion. Sites may well exist in Lake MacBride in proportionate numbers. However, the dense vegetation and general lack of erosion along the shore prohibits easy location. Shovel testing, which was employed in most areas of Lake MacBride, is simply not as effective a survey technique as pedestrian walkover. Nevertheless it is the only rapid, relatively inexpensive technique available for land with dense vegetation.

We are satisfied that our survey of Lake Macbride was comprehensive. However, in light of the factors mentioned above, it is recommended that any large scale earthmoving projects undertaken in the park be monitored by an archaeologist.

HAWKEYE WILDLIFE AREA:

Archaeological Investigation:

The Hawkeye Wildlife Area is a huge tract of land west of the Interstate 380/Highway 218 bridges (refer to Figure 1). The area is relatively level and has been subject to the effects of lateral migration by the Iowa River. Oxbow lakes, meander scars, sloughs and cutoffs are evident along the course of the river. The Hawkeye Wildlife Area is owned by the Corps of Engineers and leased to the Iowa Conservation Commission for management as a wildlife area and refuge.

Prior to purchase by the COE, the land had been in intensive agricultural use. It is likely that all tillable land was or had been under cultivation prior to dam construction. Under current management practices, a portion of the Hawkeye is leased to farmers for cultivation.

The combination of an active meandering river, agricultural disturbance and occasional floods (including a particularly high flood in the spring of 1984) have combined to produce survey conditions suitable for pedestrian survey. Unfortunately this also indicates that most of the landscape has been subject to plowing, flooding and wind and water erosion.

The Hawkeye Wildlife Refuge, a subset of the wildlife area, was surveyed between the northern boundary and a southern limit imposed by various meander loops and oxbow lakes of the Iowa River. Additional survey units were selected using a continuation of the sampling design set up for the 1984 survey.

A total of fifteen new archaeological sites were located during the 1985 survey of the Hawkeye Wildlife Refuge Area. Eleven of these are prehistoric sites and spot finds. The remaining four are historic foundations of groups of foundations.

A brief summary of the sites is presented below. More detailed information on these and all sites located during the survey will be found in Appendix B; Iowa State Site Report forms, GLARC Coralville Site Inventory forms, and detail site maps.

1. 13JH527; A very small lithic scatter (total 6 pieces) located on a sandy rise in a plowed agricultural field. Subject to plowing and erosion.
2. 13JH528: Small lithic scatter (24 pieces debitage) found on the edge of an

agricultural field currently planted in winter wheat. Plowing and erosion damage.

3. 13JH531: Medium lithic scatter (139 pieces debitage) located on the slope of a small rise. Site is just southwest of a former railroad causeway. Site and environs subject to severe erosion.
4. 13JH532: This site was found on the slope and top of a small rise just northeast of an abandoned railroad causeway. This site is separated from 13JH531 by the railroad causeway. The present archaeological phenomenon may have been part of a single large habitation made up of 13JH531 and 13JH532. Area is subject to flooding and severe erosion.
5. 13JH534: Two small sidenotched points and 65 pieces of lithic debitage were recovered from this site. Material was located in a winter wheat field on the top and slopes of a small sandy rise. Site is eroded and has been flooded.
6. 13JH535: A small, relatively dense lithic scatter (105 pieces of debitage) recovered from the sandy slope of an alluvial fan on the edge of a winter wheat field. An active agricultural field, the area is subject to wind and water erosion and occasional flooding.
7. 13JH-19: A single corner notched biface found in a tread mark of a bulldozer near Highway

20. The bulldozer was being used to clear debris from last year's flood.

8. 13JH-20: This spot find consists of a single flake located in sandy sediment at the boundary between a winter wheat field and a woodlot.
9. 13JH539: Site is a typical small lithic scatter collected in a winter wheat field. The field is bordered on three sides by sloughs and seasonally active channels. Material recovered was limited to eleven pieces of debitage and a single ceramic crumb. Site vicinity has been plowed and eroded.
10. 13JH-21: Two flakes make up the collection from this spot find. The flakes were recovered about 50 meters east of 13JH539 in the same wheat field.
11. 13JH-22: A spot find made up of two flakes picked up from a sandy slope adjacent to a slough. Site is near 13JH-21, 13JH539, and historic site 13JH540.

All of the prehistoric sites were found on landforms with sandy sediment, usually on the top or side slopes of small rises. All have been plowed and flooded, and show the effects of severe erosion.

Four new historic foundation sites discovered in the Hawkeye Wildlife Area are summarized below:

1. 13JH529: This site consists of the foundations for a barn and silo. The site is located just south of the intersection of County Road F20 and an unnamed road leading to Swisher. The foundations are located near the road in a woodlot.
2. 13JH530: Represented by a single foundation, 13JH530 consists of two walls and the floor of concrete basement set into a slope just south of F20. The land in the vicinity is being cleared of debris from last year's flood and the crew parked their bulldozer in this foundation at night. This foundation is shown on the Swisher U.S.G.S. 7.5" quadrangle map.
3. 13JH540: A unique site in that it is the only foundation we located that has been destroyed. The site exists now as several large piles of concrete rubble. In addition to debris from at least three buildings, remains of what appears to be a bridge, farm machinery and an automobile body were found on the site.

With the exception of 13JH540, the historic foundations we found were stable and safe at the time of reporting. More information concerning the former structures and inhabitants may be found in the RID-COE Real Estate office and in various archival repositories in Iowa.

Geomorphic Context:

On-going investigations demonstrate that this locality has the highest potential for locating undisturbed archaeological deposits at Coralville Lake. The region is a complex series of landforms including three (minimally)

distinct terraces, a very complex series of meander scars, cut-offs, and ox bow lakes, and a substantial number of steep and low angle alluvial fans. Within these contexts numerous buried soils have been found and several of these have been dated. These information sets have not yet been formalized and mapped and research is still in progress. Generally, it is safe to assume that many localities are indeed disturbed by early to middle Holocene events but a significant number of relic landforms are intact having been buried by sedimentation.

MISCELLANEOUS INVESTIGATIONS:

In addition to survey of specified recreational areas, GLARC attempted to assess the integrity and research potential of two prehistoric sites located during the 1984 survey. Site 13JH479 is a small site situated on the floodplain of a tributary of the Iowa River. It was initially tested last season, but the results were inconclusive and severe weather forced us to abandon field operations for the season.

During the 1985 season, we attempted to determine the areal extent of the site. Surface collection and test excavation last year indicated a very small site area of approximately three by five meters. Material was concentrated on a small terrace slope. In order to determine if the site was larger than the exposed surface scatter indicated and to look for subsurface deposits, we excavated a series of large (ca 50cm. x 50cm. x 50cm.) shovel tests in a close interval (five meter) grid. Seventy seven shovel tests were excavated in a rectangular grid 50m x 30m centered on the known site area. Unfortunately, no artifacts were recovered during shovel testing at 13JH479.

Our best assessment of this site is that it represents a small ephemeral occupation, perhaps of only a few days duration. We had hoped to recover more data, as the small

valley has been spared most of the devastating effects of the erosion which characterizes the shore of Coralville Lake. Coring with a silt probe indicated that the vicinity of the site had an "A" horizon buried by 10-15 cm. of recent alluvium. Such conditions have the potential for preservation of archaeological deposits. Our inability to find sections of 13JH479 intact despite extensive testing is probably due to its small size and the fact that the site is bordered by a horse trail. The site was originally noticed as artifacts exposed on the horse trail along the slope of a small terrace. Meandering of a small stream which borders the site may also have cut into the site area. The net result of testing at 13JH479 is that the only site at Coralville known to have subsurface integrity was effectively excavated by two test units completed last year.

The second site tested in 1985 was 13JH457, located on a sandy ridge in the far western portion of the Hawkeye Wildlife Area. The site was collected last year as a surface scatter in a winter wheat field. It is one of the few sites to have diagnostic artifacts from the Archaic cultural/temporal period. Recovery of Archaic bifaces and a seemingly undisturbed woodlot adjacent to the surface scatter in the plowed field prompted us to excavate several test units. Unfortunately, the woodlot was severely eroded and no artifacts were found in the three 1 x 2 meter test units excavated. A re-survey of the wheat field failed to recover any additional artifacts.

SURVEY SUMMARY AND RECOMMENDATIONS:

The present report covering survey of selected recreation areas at Coralville Lake represents completion of the identification portion of the archaeological management program for Coralville. As of this writing, approximately 40% of the land at Coralville has been surveyed by GLARC. One hundred and twenty-seven archaeological sites were located during two field seasons of survey. Thirty-five of

these were previously reported prehistoric sites. Fifty-seven sites were previously unreported prehistoric sites (41) and spot finds (16). Out of a total thirty-five historic sites, twenty-four are historic foundations while eleven were scatters of historic ceramics. Several sites in the above totals had both historic and prehistoric artifacts. In addition to the sites collected by GLARC, approximately 160 sites have been reported by other investigators.

A single feature which characterizes all but one of the prehistoric sites located by GLARC and virtually all of the previously reported sites is their state of preservation. With few exceptions the known prehistoric sites at Coralville exist as lag deposits located on the eroded "bathtub ring" in the eastern half of the reservoir or on deflated plowed fields in the Hawkeye Wildlife Area. Historic ceramic scatters have the same context. Historic foundation sites are generally stable, but given the documentary records associated with them and the existence of similar structures on operating farms in the vicinity, their utility may be limited. Given the extent of survey and the condition of known sites at Coralville, we believe that additional field work at Coralville should not be directed toward existing site phenomenon. Rather, future fieldwork should attempt to investigate certain landforms which hold the promise of relatively undisturbed sites. One type of landform which might warrant future investigation is small tributary valleys. While these have been effected by various geomorphic processes, they do not appear to have been as severely altered as the main valley by recent events such as agriculture and dam construction. Site 13JH479 was found in this type of context. A program of shovel testing and test excavations may be used to investigate some or all such valleys around the reservoir. A second landform which might be profitably investigated is the network of alluvial fans found in the Hawkeye Wildlife Area. At this point in

time the size, depth structure and age of these fans is unknown. A better assessment of the archaeological potential of both landforms will be possible following completion of a geomorphological survey of the reservoir currently in progress.

Despite the poor condition of known sites, several avenues are available which would utilize Coralville site data to address pertinent archaeological questions. Two broad categories of analysis are applicable to the prehistoric resources of Coralville Reservoir. The first involves cultural/temporal identification and functional assessment of sites. Given the state of the resource base, further field work is not likely to produce data sufficient to justify the expenditure. Rather, the goals of identifying the activities which took place at a site and the group responsible will best be met by analysis of existing collections from Coralville.

Temporal/cultural affiliation is usually made by comparing diagnostic artifacts from the site in question with identified specimens from sites in the region. This step has been carried out for many of the Coralville sites at least at a rudimentary level. However, many Coralville sites have been subject to multiple collection by several collectors. Examination of all available diagnostic items would aid in refining temporal/cultural identification.

A determination of site function is a somewhat more complex procedure. The virtual lack of vertical and horizontal integrity of Coralville sites places a definite limit on the confidence we can have in assessments of site function. In particular, natural erosion, agricultural activities and recreational use results in elimination of features and removal of an unknown percentage of artifacts. Confidence is further eroded due to collector activity which serves to remove diagnostic materials. These processes all but eliminate determination of specific intrasite activities. However, using available collections, some

indication of general site activity and function may be estimated. Archaeologists are left with the task of reconstructing these sites based on incomplete and biased information sets.

Functional assessment using surface collections are commonplace. Techniques vary but revolve around detailed analysis of lithic tools, edges and debitage. Lithic analysis would seem to offer the best opportunity for extraction of maximum information from the Coralville collections.

Lithic analysis may vary in complexity depending on the type of information desired, the expertise of the researcher and the level of funding available. For example, at the low end of the scale, an impressionistic assessment may be achieved by examination of the number and type of tools recovered and variety and amount of debitage. A site which had a few worn or broken tools and a small number of resharpening flakes could be classified as a small ephemeral extractive camp. A more intensive analysis might involve detailed edgeware studies on all tool edges in order to determine types of activities carried out and materials worked on. Detailed study of debitage may also yield data pertaining to the range of manufacturing activities carried out at a site as well as lithic resources utilized.

A second major direction for research involves correlation of landscape/resources with known sites of various cultural/temporal affiliation and function. Such a study would be directed toward developing models of prehistoric subsistence/settlement for various archaeological groups represented at Coralville. In addition to providing information on the way in which prehistoric peoples organized themselves about the landscape, this information would allow a reasonably accurate prediction of where sites are likely to be found on the landscape.

Research of this type requires a fairly detailed model of landscape evolution at the reservoir and surrounding areas. Emerson et. al. (1984) developed a preliminary geomorphic model for the area. However, this model seems to rely heavily on soils maps and was based on limited field work. The RID-COE has recently let a contract for geomorphological survey at Coralville with the express goal of developing a useful model of landscape evolution.

A second goal of this study is identification of stable buried surfaces which offer the best prospects for discovering intact archaeological sites. Development of archaeological subsistence/settlement models must await the completion of the geomorphological study and at least provisional identification of cultural/temporal affiliation and functional assessment of the Coralville sites.

Under the present contract, GLARC has taken steps toward accurate cultural/temporal identification and functional analysis of the Coralville materials. Coralville collections housed at the Office of the State Archaeologist in Iowa City have subject to preliminary examination and diagnostic items have been photographed. Materials collected during the GLARC surveys have been inventoried with initial categorization of chert type, heat treatment and stage in a manufacturing sequence for all debitage. Diagnostic materials collected by Duane Miller have been examined and photographed. James Zalesky (1977) has cataloged his collections from the reservoir. Material collected by Impact Services has been cataloged Emerson et. al. 1984) and this collection sent to GLARC. Table 1 presents a summary of cultural affiliations and functions for those sites located within recreation areas.

TABLE 1:

Summary of Archaeological Sites Located During Survey of
Recreational Areas: Coralville Reservoir.

Site No.	Recreation Area	N/R	Cultural Affiliation/Function
13JH55	Sugar Bottom	R	Indeterminate / Indeterminate
13JH117	Sugar Bottom	R	Woodland / Indeterminate
13JH124	Sugar Bottom	R	Indeterminate / Indeterminate
13JH238	Sugar Bottom	R	Late Woodland / Indeterminate
13JH298	Sugar Bottom	R	Early Woodland / Indeterminate
13JH385	Sugar Bottom	R	Indeterminate / Indeterminate
13JH422	Sugar Bottom	R	Indeterminate / Indeterminate
13JH520	Sugar Bottom	N	Indeterminate / Indeterminate
13JH521	Sugar Bottom	N	Historic / Foundation
13JH522	Sugar Bottom	N	Historic / Foundation
13JH523	Sugar Bottom	N	Indeterminate / Indeterminate
13JH-17	Mehaffey Bridge	N	Middle Woodland/ Spot find
13JH478	Mehaffey Bridge	R	Indeterminate / Indeterminate
13JH43	Sandy Beach	R	E,M,L Woodland / Habitation
13JH108	Sandy Beach	R	Woodland / Indeterminate
13JH-18	Sandy Beach	N	Indeterminate / Spot find
13JH524	Lake MacBride	N	Historic / Foundation
13JH525	Lake MacBride	N	Historic / Foundation
13JH526	Lake MacBride	N	Historic / Windmill
13JH536	Mid River	N	Historic / Foundation
13JH527	Hawkeye	N	Indeterminate / Indeterminate
13JH528	Hawkeye	N	Indeterminate / Indeterminate
13JH529	Hawkeye	N	Historic / Foundation
13JH530	Hawkeye	N	Historic / Foundations
13JH531	Hawkeye	N	Indeterminate / Indeterminate
13JH532	Hawkeye	N	Indeterminate / Indeterminate
13JH533	Hawkeye	N	Historic / Foundation
13JH534	Hawkeye	N	Late Woodland / Habitation?
13JH535	Hawkeye	N	Indeterminate / Habitation?
13JH539	Hawkeye	N	Indeterminate / Indeterminate
13JH540	Hawkeye	N	Historic / Foundations
13JH541	Hawkeye	N	Historic / Foundation
13JH542	Hawkeye	N	Historic / Foundation
13JH-19	Hawkeye	N	Indeterminate / Spot find
12JH-20	Hawkeye	N	Indeterminate / Spot find
13JH-21	Hawkeye	N	Indeterminate / Spot find
13JH-22	Hawkeye	N	Indeterminate / Spot find
13JH278		R	Indeterminate / Habitation?
13JH479		R	Late Woodland? / Indeterminate
13JH537		N	Late Woodland / Habitation?
13JH538		N	Hist. & Prehis / Indeterminate

(N/R = New/Relocated)

AREA SPECIFIC SUMMARIES AND RECOMMENDATIONS:

The following summaries and recommendations are provided for potential integration within a memorandum of agreement for recreation areas at Coralville Lake. Given that the Lake has already been constructed, these recommendations relate to future activities which consist in the main of maintenance, facilities improvement, and construction of new facilities. The intent here is to anticipate, in so far as possible, potential adverse effects on area-specific bases. If successful, the proposed memorandum of agreement will allow for rapid and comprehensive review of project-related impacts to known and suspected archaeological sites.

Turkey Creek Recreation Area:

No potentially significant archaeological sites were identified at the Turkey Creek Recreation Area. The geomorphic context and topographic position of the recreation area are such that intact buried surfaces with associated undisturbed archaeological deposits do not exist at this locality. Combined archaeological and geomorphic field investigations foster the conclusion that the Turkey Creek Recreation Area is a very low potential landscape. Should major construction activities be anticipated it would be feasible to conduct an on-site inspection during earth-moving activities. The purpose of such inspection would be to identify deeply buried surfaces that had been covered by mass-wasting. These contexts would occur at the bases of side and foot slopes.

Tailwater West:

Combined archaeological and geomorphic field investigations reveal that the Tailwater West Recreation Area consists of made-land. Future maintenance and/or construction activities will thus have no impact on

potentially significant archaeological sites of prehistoric or historic eras.

Tailwater East:

Much of this recreation area has its origins in earth-moving activities associated with the Coralville Lake construction project. No archaeological remains were encountered here and no preserved landscapes are intact at this location. Anticipated earth-moving activities, maintenance, or construction should require no further cultural resources investigation at Tailwater East.

Cottonwood Recreation Area:

Survey investigations revealed no archaeological sites at the Cottonwood Recreation Area. Geomorphic investigations confirmed that much of the locality has been altered both by natural and man-activated events. In spite of this, there is one high potential locality worthy of further investigation. A small alluvial fan (illustrated on Figure 3) contains remnants of at least two buried soils. Some disturbance has been related to borrowing activities at the fan. If further disturbance is contemplated, formal geomorphic investigations should be conducted here. These investigations should include (1) back-hoe trenching along the longitudinal axis of the fan; (2) detailed mapping of the fan profiles; (3) soil sampling for particle size and chemical analyses; (4) examination of buried soil horizons for cultural debris; and (5) dating of organics, should they be encountered, to determine the age of buried landscapes. The remaining area of the Cottonwood recreational facility has been so severely disturbed that routine maintenance or facilities improvement will not impact significant cultural resources.

West Overlook:

Thorough archaeological survey reveals no evidence of prehistoric or early historic occupation or utilization of the West Overlook Recreation Area. Topographic and geomorphic contexts demonstrate great relief and limited

stability through time serving as an explanation of negative findings. Facilities construction has also resulted in significant disturbance. Given these considerations, there are no data that would justify additional cultural resources investigations relative to maintenance, site improvement, or future construction.

Linder Point:

Intensive survey at Linder Point yielded no evidence of historic or prehistoric archaeological sites. In spite of a previously reported site (13 JH 360), our efforts were unable to confirm the presence of cultural materials. Schermer (1983) recovered a "ceramic crumb" and, notably, Emerson (1984) had no success in finding evidence of a prehistoric site at this location. Our conclusion is that Linder Point harbors no significant cultural resources. As a result, further archaeological investigations should not be required for future site development or modification.

Squire Point:

Intensive archaeological and geomorphic fieldwork at Squire Point did not reveal any in-situ cultural materials or contexts. During various survey efforts here (Schermer 1983, Overstreet and Stark 1985, Duane Miller, personal communication) artifacts have been found on the eroded shoreline. For all intents and purposes, these sites have had their contexts destroyed by erosion. It is remotely possible that early Holocene landscape remnants could lie buried beneath foot and sideslope mass wasting. However, these surfaces would lie at an approximate depth of 20 or more feet beneath the surface. For these reasons it is not feasible to conduct additional cultural resources investigations at Squire Point. Like Turkey Creek, it would be appropriate for Corps of Engineers cultural resources staff to inspect or monitor extensive earth moving at this locality to confirm or deny the presence of such deeply buried surfaces.

Sugar Bottom:

Sugar Bottom has been subjected to several intensive investigations including the comprehensive survey conducted under the auspices of this contract. Twenty-one sites have been reported within the Sugar Bottom Recreation Area. However, all but two of these (13 JH 359, 425) have been demonstrated to exist as lag deposits on deflated surfaces (Emerson et al 1984, Overstreet and Stark 1984). Of site 13 JH 359, Emerson et al note:

Current field checking located the site based on Miller's description; however, no artifacts were observed on the surface. The only exposed surface area was along the road proper. Areas adjacent to the road were in pasture and surface visibility was zero. A single shovel test (see Figure 20) placed 2m south of the dirt road and 30m southwest of a gate across the road, yielded one flake between 10 and 15cm below ground surface. Heavy clay was encountered at 15cm. This subsurface test indicated that severe erosion of topsoil has occurred, probably during past cultivation activities. (The examined area is on the boundary of Corps' property, and it is possible that the site area extends to the east onto private land.) The potential for further research at this site appears to be low (1984: 88).

Similar low potential is inferred for site 13 JH 425 owing to similar topographic and geomorphic contexts. (Refer to discussion in this report, pp. -). It is possible that some isolated deep features have not been completely removed by erosional forces at 13 JH 359 and 425. In spite of this limited research potential, the probabilities are low based on our testing of terrace surface sites throughout the Coralville Lake area generally, where sites occur as lag deposits on surfaces distressed by Holocene climatic events, intensive agriculture, and post-Lake construction erosion, and Emerson et al's (1984) intensive work specifically at Sugar Bottom. Their conclusions for Sugar Bottom derived from intensive on-site investigations are:

The formal conclusions of this testing program can be stated as follows: 1) 13JH55, 13JH117, and 13JH422 have been severely disturbed by cultivation, erosion and inundation; 2) with the exception of a small portion of 13JH422, all three site areas are essentially destroyed; 3) recovered artifacts suggest that at least one of the recorded sites was of Early to Middle Woodland cultural affiliation. At this time, it is not possible to more completely define the exact nature (size, function), of the sites as they originally existed; 5) the sites do not appear to meet the eligibility criteria for nomination to the National Register of Historic Places (1984: 65).

Sugar Bottom is demonstrated to be an important locality for Woodland settlements. Unfortunately, any further excavation of archaeological deposits here cannot be justified. There is, however, important information that needs to be compiled for development of a comprehensive predictive model for archaeological site locations at Coralville Lake. This can be accomplished from extant mapping and requires no further fieldwork at Sugar Bottom. Plane table maps may be utilized for a detailed reconstruction of occupied landforms. Relational contexts may then be inferred to interpret Woodland settlements at other localities within the Coralville Lake area. We are likely to learn nothing new at Sugar Bottom by continued application of archaeological methods and techniques on site-specific bases. For these reasons we are compelled to conclude that any further project related archaeological field work at Sugar Bottom is ill advised.

Mid-River Public Use Area:

As previously noted, archaeological contexts at the Mid River Public Use Area are lacking. The side slope topography has resulted in expected depositional-erosional relationships. Slope wash erosion has characterized the Holocene events here and recent shoreline erosion has compounded the long-term instability. These factors notwithstanding, one archaeological site is recorded within

the confines of Mid-River Public Use Area. Coded as 13 JH 27, this site consists of a small lithic scatter of indeterminate origin. Any further intensive work will not likely alter the data base of 13 JH 27. Consequently, contemporary and anticipated future management practices will have no impacts on archaeological sites that meet the criteria for inclusion in The National Register of Historic Places. In fact, the only archaeological site of prehistoric affiliation at Mid-River is probably re-deposited, or, at best a lag component on a disturbed surface.

Curtis Bridge:

Zeiglowski and Zalesky (1981) report that part of a prehistoric site consisting of fire-cracked rock and lithic debitage was destroyed when a boat ramp was constructed at Curtis Bridge. Our investigation failed to yield any evidence of prehistoric occupation or utilization at this recreation area. Further, any archaeological sites that would have existed here would have been destroyed by erosion, cutting, and filling activities. Maintenance or future construction need not be monitored at Curtis Bridge as intensive investigations reveal no sites eligible for The National Register of Historic Places.

Sandy Beach:

The Sandy Beach locality, like Sugar Bottom, is an important area for understanding prehistoric occupation at Coralville Lake. Anderson (1971) has identified virtually the entire range of northeast Iowa Woodland ceramics at the Sandy Beach Site. It is disappointing that this locality has been characterized by long-term instability and the context of archaeological deposits, consistent with many other terrace localities, has been destroyed by Holocene climatic events. Cultural remains have been found within a dune feature and once occupied surfaces have been destroyed by eolian activity. In addition, artifacts from the various components have been mixed by deflation rendering temporal segregation of all materials, excepting diagnostic artifacts, an impossible task.

Anderson states with regard to Sandy Beach:

We have identified Black Sand Incised, Neteler Stamped, Havana Zoned, Madison Cord Impressed, Lane Farm Cord Impressed, and Weaver Ware. There is also a Late Woodland cross-hatched rim form that has been found at the Minott's Shelter, the Walters Site, and which resembles an undefined type found at the Hartley Village site in northeastern Iowa. Representative specimens from the reservoir are included in the Figures to indicate the range of forms and decorative techniques. It was concluded that the effective destruction of the site ruled out any potential for further research (1971: 6).

Our investigations at Sandy Beach provided no data that would contradict Anderson's conclusions regarding the Woodland occupations at Sandy Beach. However, it is always possible, though certainly not highly probable, that older (pre-Woodland) surfaces could be intact beneath the dune. Additional information relating to this phenomenon will be available at the completion of Great Lakes Archaeological Research Center's current landscape analyses.

For these reasons we would recommend that no further archaeological investigations be conducted for maintenance and construction at Sandy Beach. Two concerns, on the other hand, should be addressed. First, again as with the Sugar Bottom, destroyed landforms should be reconstructed from the existing plane table maps to provide an assessment of Woodland settlement locations. In addition, the base of the dune should be investigated either with mechanized equipment or a flight auger (the former would be preferable) to investigate the prospect of encountering pre-Woodland features beneath the dune and to secure chronological information. Of particular interest is the time when this and other eolian features began to develop at Coralville Lake.

Mehaffey Bridge:

The Mehaffey Bridge recreation area is situated on a severely eroded loess capped hillslope that dips to the Iowa

River. All archaeological deposits identified here consist of lag deposits. No research potential relative to historic or prehistoric sites is in evidence at Mehaffey Bridge and thus no further archaeological investigations are warranted within the confines of the recreation area.

Lake MacBride State Park:

The Lake MacBride State Park was thoroughly inventoried for archaeological sites. Those that were encountered occur as lag deposits on the eroded shoreline of Coralville Lake proper and not on the shore of Lake MacBride. Archaeological deposits, probably associated with small seasonal camps, are undoubtedly inundated beneath Lake MacBride. Additional sites could occur in localities where ICC operations precluded intensive investigation. In part this assumption is made because of the relative stability and lack of erosion in the Park. Any significant earth moving activities, i.e., construction, rehabilitation, borrowing, etc., should be monitored by a qualified archaeologist. This activity would best be implemented through a memorandum of agreement and coordination with operations staff at the ICC managed Lake MacBride State Park.

Hawkeye Wildlife Area:

Our intensive investigations at the Hawkeye Wildlife Area encompassed some 1,400 acres in the Hawkeye Wildlife Refuge. This sub-unit represents approximately 10.0% of the total wildlife area managed by the ICC. The eleven (11) prehistoric sites identified through our intensive efforts all lack sub-surface contexts. However, the Hawkeye Wildlife Area is a complex series of different aged surfaces, many of which are buried by steep and low angle alluvial fans, flood deposits, eolian deposits, and other sedimentary processes. At the same time, vast areas of the three major terraces in this reach of the Iowa River Valley have been impacted by deflation during prehistoric times. This has undoubtedly been exacerbated by intensive agriculture prior to construction of Coralville Lake.

These factors all serve to indicate that visible or accessible near-surface sites have likely been severely impacted. In spite of this, some of the highest potential localities for encountering intact, undisturbed occupation areas are found in the Hawkeye Wildlife area. Detailed mapping of areas of high and low potential for archaeological sites has not yet been completed. Following accomplishment of this task, it is recommended that a memorandum of agreement and coordination with the ICC managers be developed.

CONCLUSIONS:

Intensive survey, testing, and geomorphic investigations at special use areas within the confines of the Coralville Lake project area had revealed that only two localities have the potential for impacts to significant prehistoric and historic archaeological sites. These localities, the Lake MacBride State Park and Hawkeye Wildlife Area are both managed by the Iowa Conservation Commission. Within the latter locality, specific areas of high and low potential will be delineated as part of an on-going project to identify various Holocene landscapes. Lake MacBride State Park is notable for having suffered only minimal disturbance from reservoir fluctuations.

To date, inventory work has been conducted at approximately 40% of the Coralville Lake Project Area. Previously reported archaeological sites that were revisited and updated and those located during the pedestrian survey exist as lag components on disturbed surfaces. It is concluded that additional sample survey will not significantly alter the nature of the identification for long-term management purposes. Future survey investigations should be sub-surface in scope and should focus on landforms where buried stable surfaces have been identified.

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APPENDIX A

SCOPE OF WORK

MODIFICATION
DACW25-84-C-0033, CULTURAL RESOURCES MANAGEMENT PLAN,
INTENSIVE ARCHEOLOGICAL SURVEY, AND GEOMORPHOLOGICAL STUDY
FOR
RECREATION AREAS AT CORALVILLE LAKE, IOWA

I. PURPOSE

1.1 The purpose of this modification is to obtain intensive archeological investigations specifically for recreation areas listed in table 1 below (item 2.1) under the jurisdiction of the Corps of Engineers, Rock Island District. All specifications and requirements of the original contract remain in force unless altered by this modification.

1.2 Reference 1.1 and 1.2 of the original contract for regulatory and theoretical guidance on archeological investigations at Coralville Lake.

II. BACKGROUND

2.1 Item 2.1 of the original contract provides a general project area background summary. Additional information included below applies to the recreation areas to be investigated under this modification:

TABLE 1
RECREATION AREAS AT CORALVILLE LAKE, IOWA

<u>NAME OF AREA</u>	<u>ACREAGE</u> *	<u>MANAGEMENT</u>
Turkey Creek	11/41	COE
Tailwater East	5/7	COE
Tailwater West	14/14	COE
Cottonwood	2/4	COE
West Overlook	26/61	COE
Linder Point	4/95	COE
Squire Point	-	COE
Sugar Bottom	77/780	COE
Mid River	11/13	COE
Curtis Bridge	9/9	COE
Sandy Beach	612/642	COE
Mehaffey Bridge	20/20	LEASED
Lake McBride State Park	200/1,117	LEASED
Hawkeye Wildlife Area	15/1,378	LEASED

* developed/undeveloped

III. PROPOSAL

3.1 The Contractor must agree to adhere to the regulatory and pro-

professional requirements described in the original contract. Hence, the narrative proposal can be limited to a brief presentation of overall research design and how the information generated under this modification will be integrated within the final product required under the original contract. Use of references to the original proposal shall be sufficient for most topics. The District will require a detailed cost estimate with specific references to staff levels of effort required to carry out this modification. This information shall be due NOT LATER THAN February 1, 1984; any earlier submission will be greatly appreciated. Negotiations, if required, will be handled by telephone first, and followed up by written notifications and approvals prior to award.

IV. SPECIFICATIONS

4.1 The Contractor shall utilize the documentary and field information generated under the original contract to help identify, survey, and test (as required) all cultural deposits and key geomorphological contexts within recreation areas. The Contractor shall supply this District with preliminary letter reports (with copies to the SHPO) sufficient to monitor progress and to consider determinations of significance and effect or to identify sites where testing shall be required for formal determinations of National Register eligibility. Relevant geomorphological/stratigraphic studies shall be conducted to aid in the interpretation of cultural deposits and for assessing states of data preservation.

4.2 In order to attain maximum cost effectiveness for any fieldwork that will be performed, the Contractor shall make appropriate use of power machinery for test trenching, test pitting, and coring.

4.3 The Contractor shall generate and implement a field survey to confirm cultural resource locations cited in existing documents and to identify previously unrecorded sites that will require management decisions. The field sampling strategy will include a definition of the study areas through the use of available mapping, the description and display of project lands in terms of field coverage, and the description of geomorphological and environmental data pertinent to past cultural use.

4.4 The information for each site shall be the same as described in 4.8 of the original contract with the added task of identifying areas where no further investigations are required. Justifications will be provided for the latter.

4.5 The overall objective is to identify sensitive areas that require management actions such as stabilization, protection from vandalism, or further investigations. It is anticipated that the total developed acreage covered under this modification can be considered non-sensitive through adequate investigations and become available for future actions without the need for additional archeological investigations. The exception to this would be unanticipated resources found during construction. This would eliminate the need for the many duplicative,

small-scale survey efforts currently being done.

4.6 Upon completion of the work under this modification, the District, the Contractor, and the SHPO shall arrange a meeting to define responsibilities concerning the recreation areas and the need for specific management actions. A Memorandum of Understanding may be considered to delineate management and compliance procedures for the recreation areas.

V. REPORT

5.1 The Contractor shall include the results of this investigation in the draft and final reports required under the original contract. This work element will be set out in a way that is easy to access for compliance review.

VI. RECOMMENDATIONS

6.1 The Contractor shall make professional recommendations concerning the disposition of sites and lands covered under this modification to guide the District and the SHPO in their consideration of National Register and management issues. Sensitive and non-sensitive areas shall be clearly defined on maps.

VII. COORDINATION

7.1 Continuous coordination will be maintained with the State Historic Preservation Officer, the park manager, and the District office. This will insure that the Contractors work schedules and work plans can be monitored and that no conflicts occur.

VIII. SCHEDULE

8.1 The overall contract period for this modification is 60 calendar days.

IX. GENERAL

Items 10.1 through 10.3 in the original contract shall remain in force.

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